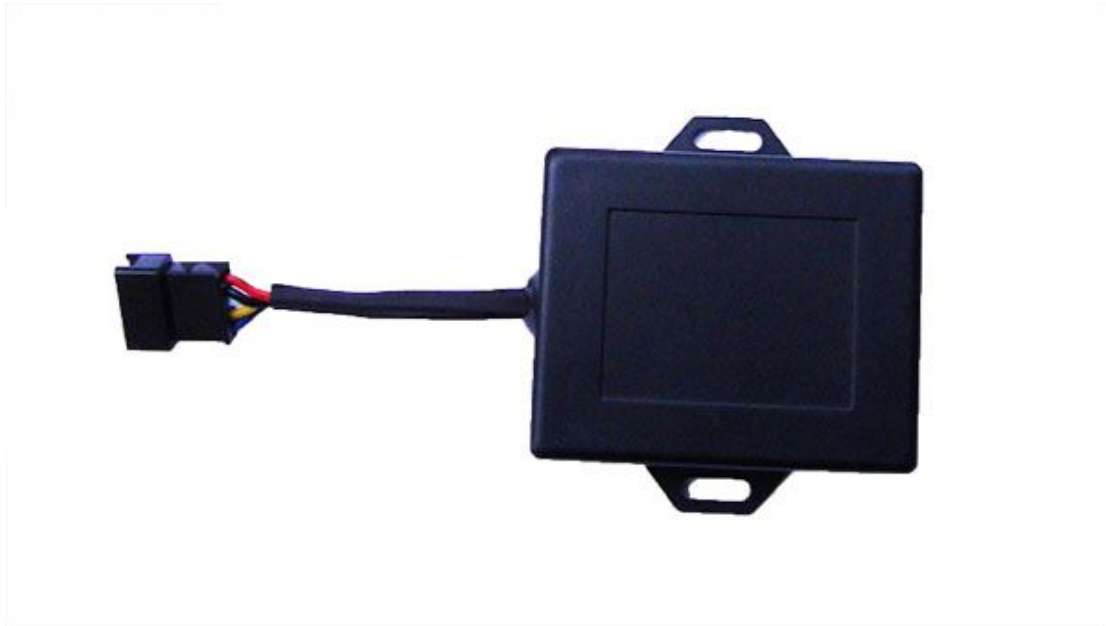


GPS Vehicle Tracker



USER MANUAL (Model: MT08)

Please read carefully before operation

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1. Product Overview

The MT08 GPS motorcycle/vehicle tracker is a high cost-effective solution for security & real time tracking. It is specially used for motorcycle/ car tracking because of its compact size and waterproof design.

2. Applications

- Vehicle real time tracking
- Motorcycle/Car security/Anti-hijack
- Fleet Management

3. Product functions and specifications

3.1 Product function

- Track on command or by time interval via SMS/GPRS;
- Track by distance;
- Check the location directly by the Google map's URL;
- Check the car's real physical address (such as city name, street name etc.)(need support of the GPRS01 or SMS01 Center);
- Track by mobile SMS to get the latitude, longitude, speed, direction and odometer etc.;
- Arm/Disarm by SMS or phone call;
- Engine ON/OFF / Fuel monitoring (Alternative)
- Online website tracking by GPRS data network;
- Over-speed alarm, Geo-fence alarm, Movement alarm;
- SOS Panic Button / Doors detection (Alternative)
- Built-in 350mAh rechargeable backup battery; when the car battery is cut off, the system will send out power failure alert immediately;
- I/O: 2 Input and 1 Output;
- Compact size with Waterproof design;
- Voice monitoring (Optional)

3.2 Specifications

Items	Specifications
Dimension	62*50*22mm
Weight	65g
Charging Voltage	+6~24VDC
Back-up battery	350mAh
Operating Temperature	-20℃~ 75℃
Humidity	Up to 75% non-condensing
GSM Frequency	GSM 900/1800/1900MHz or GSM 850/1800/1900MHz (optional)
GPS Chip	Latest GPS SIRF-Star III chipset
GPS Sensitivity	-165dBm
Positioning accuracy	10 meters, 2D RMS
Interface	2 Input and 1 Output

4. MT08 and Accessories



MT08 Main Unit



5P I/O Wire Harness

Optional Accessories



Relay



Fuel Sensor



Microphone

5. First Use

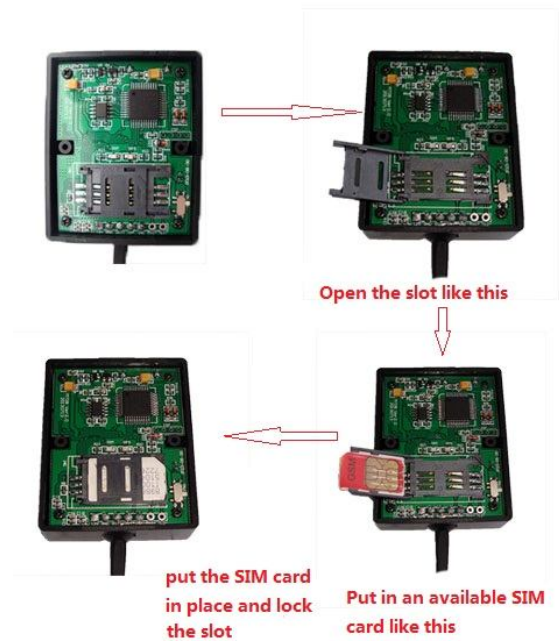
5.1 Install SIM card

Check that the SIM Card has run out of credit (test the SIM in a phone to make sure it can send and receive SMS);

Before installing the SIM card, turn off the power for MT08. Then install the SIM card as following:

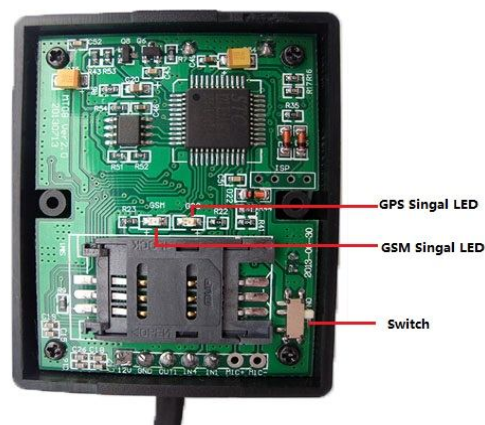
5.2 Charging

Connect the device with external power like car battery, and turn on its power switch then it will do charging automatic.



5.3 LED Indications

Push the power switch to turn on/off MT08



GPS LED (Red)	
Flashing (every 0.1 second)	Initializing or back-up battery power is low
Flashing (0.1 second on and 2.9 seconds off)	MT08 has a GPS fix
Flashing (1sencond on and 2 seconds off)	MT08 has no GPS fix
GSM LED (Green)	
Flashing (every 0.1second)	Initializing
Flashing (0.1 second on and 2.9 seconds off)	MT08 is connected to the GSM network
Flashing (1sencond on and 2 seconds off)	MT08 is not connected to the GSM network

6. How to operate it

The default user password is **000000**

If the user password is changed, user should send the SMS command with the new user password instead of **000000**.

××× is the control code, all the letters must be capital letters or in small letters, command with mixed capital letter & small letter is not recognized by system.

6.1 Arm / Disarm by phone calling

User could also use the alarm-received mobile phone to call the tracker's SIM card number, so as to Arm/Disarm the system.

Arm: After hearing several ring tones, if the system hangs up the call automatically, and call back you, it means that the system is armed.

Disarm: After hearing several ting tones, if the system hangs up the call automatically, and don't call back you, it means that the system is disarmed.

Note:

- (1) There is no communication fee for this operation, it is a very convenient way to arm & disarm the system.
- (2) The SIM card inside the device must have the function of caller ID display.
- (3) Only the Alarm-received mobile phone can realize this function.

6.2 Arm / Disarm the system by SMS

SMS command: **000000ARM**

This SMS instruction is used to arm the system;

When the system is armed, the movement alert is activated automatically. When the motorcycle / car moves, the alarm will be triggered.

SMS command: **000000DSM**

This command is used to disarm the system & stop sending alert SMS.

6.3 Check the location by Google map's URL

SMS command: **000000MAP**

Upon receiving the SMS command, the tracker will automatically send back the SMS including the Google map's URL, user can use smart phone (GPRS data service is enabled) to open the URL, the car's location will be showed on the Google map.



6.4 Authorize the alarm-received mobile

SMS command: **W***** ,003,F,P,<Mobile number>**

***** is the user password, default one is 000000.

(F=0, to turn off this function; F=1, to send alert SMS)

(P=1, the first phone; P=2, the second phone; P=3, the third phone)

In case of alert, the alarm SMS will be sent to this preset mobile number automatically.

Example: W000000,003,1,1,13800138000 to the tracker's SIM card number, if there is any alert, system will send alert SMS to the first mobile 13800138000

6.5 Change user password

SMS command: **W<000000>,001,#####**

<000000> is old password, ##### is new password, default one is 000000

The length of the user's password is 6 digits. Users are suggested to change to the new password in use.

Example: W000000,001,123456

6.6 Check the real physical address

SMS command: **000000ADD**

When user sends this SMS command to the tracker, the tracker will automatically send back the car's real physical address (such as city name, street name) to your mobile by SMS. There is no need for the user to setup any server, but it needs supports from our GPRS01 server.

Remark:

- (1) The GPRS data service of the tracker's SIM card must be activated, and the correct GPRS setting is needed (refer to the chapter of the setting of GPRS connection), user can set up the GPRS upload time interval to 0 so as to save the GPRS flow;
- (2) The physical address depends on the Google map's address information. If the place has very detailed information on Google map, then the physical address by SMS is very detailed.

6.7 Check the GPS coordinates by SMS

SMS command: **000000CHK**

This instruction is used to inquiry the vehicle's location & system's status. The system will send back the SMS, includes the similar information, such as "System is Armed..."

6.8 Stop the car by SMS

SMS command: **000000STP**

This instruction is used to cut off the power supply or fuel supply so as to stop the motorcycle/car immediately.

Attention: It is very dangerous to stop the car when the vehicle is running at high speed. We do not take any responsibility to the consequence caused by this action.

6.9 Restore the stopped car to normal status

SMS command: **000000RES**

This instruction is used to restore the car to normal status after stopping the car.

7. Presenting by SMS for GPRS tracking

7.1 Set ID by SMS

Note: for the device model MT08, ID is fixed as its IMEI number.

7.2 Set APN by SMS

Description: APN name, APN user name, APN password

If no user name and password required, just insert APN name only.

SMS command: **W<password>,011,<APN>,<APN user name>,<APN password>**

7.3 Set IP address and port by SMS

Description: IP address is 210.209.68.180 Port is 9500

SMS command: **W<password>,012,<IP>,<port>**

Example:

SMS send: W000000,012, 210.209.68.180,9500

We support domain name instead of IP address:

Example: W000000,012,www.global-track.net,9500

7.4 Enable GPRS function

SMS command: **W<password>,013,X**

Description: X=0, means close GPRS(default)

X=1, means enable TCP

X=2, means enable UDP

7.5 Set time interval for sending GPRS packet

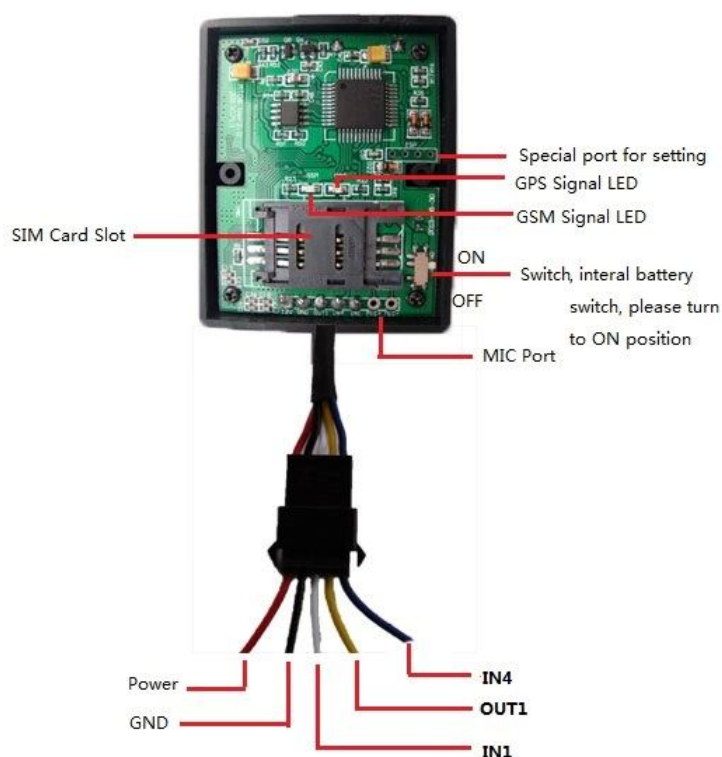
SMS command: **W<password>, 014, XXXXX**

Description: XXXXX should be in 5 digitals and in unit of 10 seconds.

XXXXX=00000, to disable this function

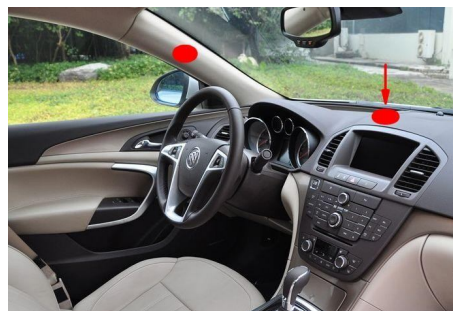
XXXXX=00001-65535, time interval for sending GPRS packet and in unit of 10 seconds.

8. Installation



PIN number	Color	Description
Power	Red	DC In (power source). Input voltage: 9V~24V. 12V suggested.
GND	Black	Ground
OUT1	Yellow	Output 1. It can be used to connect with relay for engine immobilization.
IN4	Blue	AD Port, Engine on/off detection / Fuel Monitoring etc.
IN1(SOS)	White	SOS panic button or door open detection

Recommended install place



9. Troubleshooting

FAQ	Troubleshooting
I call the tracker, it does not ring	(1) The GSM SIM card has no credit; (2) The SIM card is protected by PIN code; (3) Check the power supply, if 2 LEDs flash; (4) Check if the SIM card is placed correctly in the slot;
I call the tracker, it rings, but it doesn't response with SMS	(1) The user password is wrong, please use the correct password or reset the password to test; (2) Low power, please use external power supply to power on the unit to test
I can not get the alarm message	(1) The SIM card inside the device has no credit; (2) The Alert-received mobile number is not programmed correctly, or the SMS command is not in correct format; (3) The mailbox of the user's mobile is full;
I can not get the correct GPS coordinates or the location is wrong	(1) Please make sure there is no metal obstacles above the tracker. Please place the side with GPS antenna upside to the sky; (2) Please check it at broad place; (3) Please check if the GPS LED flash once every 3 seconds; place the tracker to other place, so as to make sure that it can

	receive the GPS signal well (4) In cloudy condition, it is a little hard to get the GPS signal, and the GPS coordinate might have some errors.
Tracker fails to connect to server by GPRS	(1) The SIM card must be activated with GPRS function; (2) Do the correct setting for GPRS connection

Appendix I

Configure by computer

This part shows the basics of how to use the TOPSHINE Parameter Editor.

Note: Don't connect MT08 to external battery when configuring.

How to edit this Parameters of MT08

Step 1: Buy one specific USB cable for configuration from our company



USB cable



Step 2: Install USB driver program for the configuration USB cable

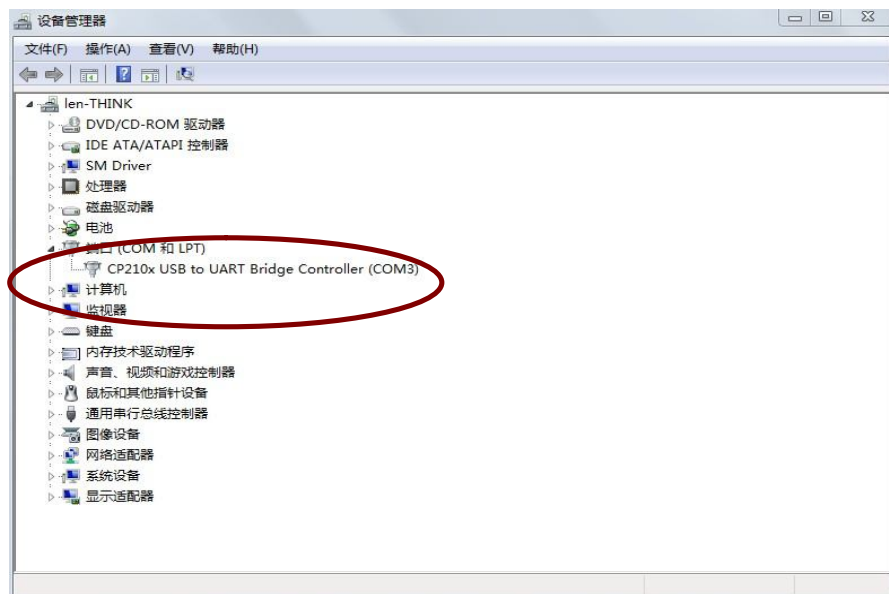
1. Run "CP210x_Prolific_driverInstaller" to install the driver for the USB data cable.

Note: CP210x_Prolific_driverinstaller is in the folder "USB-232 Driver" in the CD.

Connect the USB Data Cable between MT08 and PC.



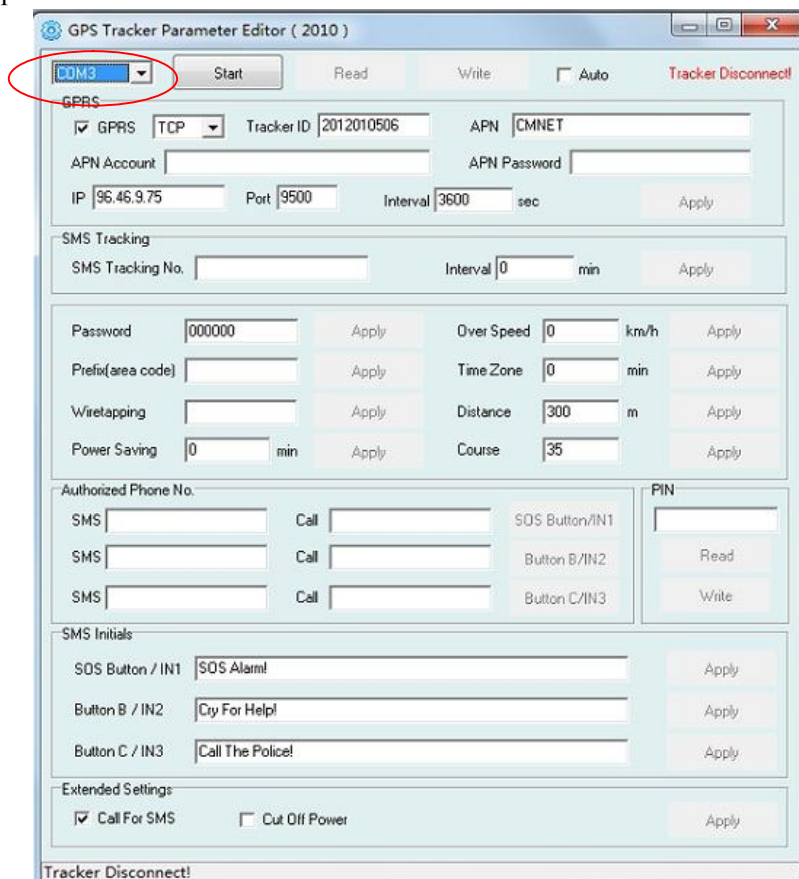
2. Connect the configuration cable with PC, open device management of your computer, you can find “Prolific USB-to-Serial comm. Port”, as following picture shows.



The USB port is virtual comm. Port (com3) in this example

Step 3: Open the GPS Tracker parameter Editor

1. Connect MT08 with PC by the configuration cable
2. Connect MT08 is in the power off status
3. Double click GPS tracker Parameter editor .exe and select the COM port, following picture shows:



4. Click Start button to open the COM port,
5. Turn on MT08 and it will connect with the Editor automatic, as soon as they connect successful, all the buttons are availability and the status bar will clue on “Tracker Connect”, then you can Read or Write the MT08’s parameters.

The screenshot shows the 'GPS Tracker Parameter Editor (2010)' window. At the top, there are buttons for 'Close', 'Read' (circled in red), 'Write', and 'Auto'. Below these are various configuration sections:

- GPRS:** Includes checkboxes for 'GPRS' and 'TCP', fields for 'Tracker ID' (2012010506), 'APN' (CMNET), 'APN Account', 'APN Password', 'IP' (96.46.9.75), 'Port' (9500), and 'Interval' (3600 sec). An 'Apply' button is at the bottom right of this section.
- SMS Tracking:** Includes a field for 'SMS Tracking No.' and 'Interval' (0 min) with an 'Apply' button.
- General Settings:** A grid of fields with 'Apply' buttons: Password (000000), Over Speed (0 km/h), Prefix (area code), Time Zone (0 min), Wiretapping, Distance (300 m), Power Saving (0 min), and Course (35).
- Authorized Phone No.:** Fields for SMS and Call for three different numbers, with buttons for 'SOS Button/IN1', 'Button B/IN2', and 'Button C/IN3'.
- PIN:** Fields for PIN and buttons for 'Read' and 'Write'.
- SMS Initials:** Fields for 'SOS Button / IN1' (SOS Alarm!), 'Button B / IN2' (Cry For Help!), and 'Button C / IN3' (Call The Police!), each with an 'Apply' button.
- Extended Settings:** Checkboxes for 'Call For SMS' and 'Cut Off Power' with an 'Apply' button.

The status bar at the bottom says 'Tracker Connect!'.

Instruction of parameter settings:

This close-up shows the 'GPRS' section of the software. It includes a checked 'GPRS' checkbox, a 'TCP' dropdown menu, a 'Tracker ID' field (2012010506), an 'APN' field (CMNET), empty fields for 'APN Account' and 'APN Password', an 'IP' field (96.46.9.75), a 'Port' field (9500), an 'Interval' field (3600 sec), and an 'Apply' button.

Item	Description
GPRS	Tick to enable GPRS function, select TCP or UDP mode
Tracker ID	ID Should be unique, in number, maximum 14 bytes
APN, APN Account, APN Password	Put your local APN, APN username and password if necessary
IP, Port	Put online tracking server IP and port, our default is IP: www.global-track.net port: 9500
Interval	To set the time interval to upload a data

Note: the ID for tracker MT08 can only set as its IMEI number

Item	Description
SMS tracking No. Interval	To put a mobilephone number for automatic tracking by SMS at certain time interval in minutes
Password	To set SMS command password, the default is 000000,
Over Speed	To set speed limit for overspeed alarm
Prefix(area code)	To set country code
Time Zone	To set time zone, GMT*60 (minutes), if in west half western hemisphere, "-" is necessary to put ahead
Wiretapping	To set wiretapping mobilephone number
Distance	To set track and upload data by certain distance in meters
Power Saving	To set time enter into standby mode when shaking not detected to save power and gprs data traffic
Course	To set upload data via angle shifting by certain angles

Item	Description
SMS Call SOS Button/IN1	To set Mobilephone No. for SMS or Calling when SOS button/Input 1 is triggered
SMS Call Button B/IN2	To set Mobilephone No. for SMS or Calling when Button B/Input 2 is triggered
SMS Call Button C/IN3	To set Mobilephone No. for SMS or Calling when Button C/Input 3 is triggered

SOS Button/IN1	To customize the reply SMS text when SOS Button/Input 1 triggered
Button B/IN2	To customize the reply SMS text when Button B/Input 2 triggered
Button C/IN3	To customize the reply SMS text when Button C/Input 3 triggered

Call for SMS	Tick it to reply SMS when calling in
Cut off Power	Tick it to send alert when the external power be cut off

Appendix II : SMS command list

Presetting by SMS for GPRS tracking		
Set ID for MT08 by SMS	W*****,010,ID	Tracker ID must be less than 14 digits
Set APN by SMS	W*****,011,APN,APN Name, APN Password	APN Name, APN Password If no password required, just insert APN name only; APN defaulted as 'CMNET'; APN name + password not over 39 characters.
Set IP Address and Port by SMS	W*****,012,IP, Port	IP: xxx.xxx.xxx.xxx Port: [1,65536]
Enable GPRS Function	W*****,013,X	X=0, close GPRS (default); X=1, enable TCP X=2, enable UDP
Set Time Interval for Sending GPRS Packet	W*****,014,XXXXX	XXXXX should be in five digitals and in unit of 10 seconds. XXXXX=00000, to disable this function; XXXXX=00001~65535, time interval for sending GPRS packet and in unit of 10 seconds.
Output Control	W*****,020,P,F	P =1, Out1 =2, Out2 =3, Out3 =4, Out4 =5, Out5 F =0, to disable the output =1, to enable the output
Output Control (Safe mode) This function is achievable when the speed is below 10km/h and GPS is available.	W*****,120,ABCDE	ABCDE represents Out1, Out2, Out3, Out4, Out5 respectively. If A or B or C or D or E, =0, to disable the output =1, to enable the output =2, to remain previous status
Set power saving mode when MT08 is still (In power saving mode, GPS stops working. GSM enters standby mode and stop sending out message until it is activated by an SMS or an incoming call)	W*****,026,XX	XX=00, to disable this function XX=01~99, to set this function. It is in unit of minute. Example: If XX=10, MT08 will enter power saving mode in 10 minutes after it is immobile.

Set phone number for wiretapping	W*****,030,T	T is the telephone number for wiretapping and max. 16 digits
Set time zone difference	W*****,032,T	T=0, to disable this function T=[1, 65535] to set time difference in minutes to GMT. Default value is GMT +, not necessary for those ahead of GMT. For example, either +120 or 120 is acceptable. -, required for those behind GMT. For example, -120.
Set character for SOS alert message	W*****,033,P,Char	Char P is the button number. P=1, 2, or 3. Char is the character in SOS message and max 32 characters
Set tracking by driving angle change function	W*****,036,Degree	Measured by Degree(s), Degree=0,disable this function ; X=1-359 , means set angle degree interval in this function.
Set tracking by distance function	W*****,045,X	Measured by Meter(s), X=0, disable this functio; X=1—65535, means the distance interval in this function.
Set clear/reset odometer function	W*****,046	To clear and reset odometer information to zero.
Set function of receiving location physical address name via SMS	W*****,111	This function need support of the GPRS01 or SMS01 tracking platform, address SMS will be received in text format.
Get version and serial number	W*****,600	To get version and serial number of current firmware
Get IMEI No.	W*****,601	To get device IMEI No.
Reboot GPS and GSM Module	W*****,900###	### is the ending character.
Initialization To turn all the parameters / settings (except for the password) to factory default.	W*****,990,099###	### is the ending character.
Password Initialization	W888888,999,666	This command will reset the current password to factory default password 000000

Description	Command	Remarks
Get current location	W*****,000	Get current location of MT08
Get location in Google map URL format via SMS	W*****,100	http://maps.google.com/maps?f=q&hl=en&q=22.542563,114.077971&ie=UTF8&z=16&iwloc=addr&om=1
Change user's password	W*****,001,#####	***** is old password ##### is new password
Set interval for automatic timed reports	W*****,002,XXX	XXX is the interval in minute. If XXX=000 it will stop tracking
Set preset phone number for SOS button	W*****,003,F,P,T	F=0, to disable this function; F=1, only sending SMS; F=2, only calling preset phone number; F=3, both SMS and calling (default) P is the button number and should be 1, or 2, or 3. If SOS button is linked to IN1, then P=1. T: Preset phone number (T must be less than 16 digits)
Set over speed alarm When MT08 speeds higher than the preset value, it will send one over speed alarm SMS to the SOS preset number.	W*****,005,XX	XX (the speed preset value) =00, disable =[01<XX<20] (unit: 10Km)
Set Geo-fence alarm (foursquare) When the MT08 moves out of preset scope, it will send one Geo-fence SMS to the SOS preset number.	W*****,006,XX	XX (set distance from current central point place) =00, disable =01, 30m =02, 50m =03, 100m =04, 200m =05, 300m =06, 500m =07, 1000m =08, 2000m
Extend Settings	W*****,008,ABCDEF GHIJ###	A=0, disable position report function when a call is made to MT08 A=1, enable position report function to get position SMS by Calling MT08 I=0, disable power failure alert I=1, enable power failure alert

		The functions of BCDEFGHJ are remained for further use. ### is the ending character.
Set Geo-fence alarm 017 command is for alarm when tracker moves out the preset scope; 117 command is for alarm when tracker moves in. When the tracker moves in or out, it will send an SMS alarm to the authorized phone number for SOS.	W*****,017,data W*****,117,data	data is the coordinates which include: Lower-left X, Lower-left Y,Upper-right X,Upper-right Y For example, 11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N Note: 1. Lower-left X,Y (longitude and latitude) should be smaller than Upper-right X,Y; 2. All longitudes and latitudes should be in ASCII format as follows:- Longitude: DDDMM.MMMM,E/W. 4 places of decimal. '0' is needed to be stuffed if no value available. Latitude: DDMM.MMMM,N/S. 4 places of decimal. '0' is needed to be stuffed if no value available; 3. Send W*****,017 or W*****,117 without data to disable this function.